

IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

1. (currently amended) A radio signal receiver in a radio communication system for executing communication by transmitting and receiving pulse signals, comprising:

- a template generation portion for generating a template; and
- a correlation device for calculating correlation between the template generated and a signal received from a transmitter;₁

wherein said template generation portion generates the template based on the basis of a reception waveform of a first signal as a known signal received from said transmitter;₁ and

wherein said correlation device determines a correlation between a second signal received from said transmitter and the template and discriminates the second signal based on the basis of the correlation result;₁ and

wherein said template generation portion stores the reception waveform of the first signal as a first reference waveform, generates a second reference waveform by converting the first reference waveform and generates the template by synthesizing the first reference waveform and the second reference waveform

Claims 2-4 (canceled).

5. (currently amended) A radio signal receiver as defined in claim 1, wherein said radio communication system discriminates whether the transmission signal is set to 0 or 1 from deviation of a transmission timing of a pulse signal from a reference time, and said template generation portion ~~acquires a reception waveform of the first signal, and generates the template by synthesizing the first reference waveform and the second reference waveform a waveform obtained by inverting a sign of the reception waveform~~ first reference waveform and delaying the ~~reception waveform~~ first reference waveform by a time corresponding to deviation of the transmission timing and the reception waveform.

6. (original) A radio signal receiver as defined in claim 1, wherein communication with said transmitter is made through a packet, the first signal is contained in a header portion of said packet and the second signal is contained in an information portion of said packet.

Claim 7 (canceled).

8. (currently amended) A radio communication system for performing communication by transmitting and receiving pulse signals, including a transmitter and a receiver, ~~wherein:~~
wherein said transmitter transmits a second signal after transmission of a predetermined first signal used for judging a propagation path condition between said transmitter and said receiver;

wherein said receiver includes a template generation portion for generating a template; and

a correlation device for calculating correlation between the template generated and the second signal received after the first signal, and performing detection.

wherein said template generation portion acquires a reception waveform of the first signal and stores the reception waveform acquired as a first reference waveform, generates a second reference waveform by converting the first reference waveform, and generates the template by synthesizing said first reference waveform and said second reference waveform.

Claims 9-11 (canceled).

12. (original) A radio communication system as defined in claim 8, wherein the first signal and the second signal are transmitted during one communication session.

13. (currently amended) A radio communication system as defined in claim 8, wherein said radio communication system discriminates whether the transmission signal is set to 0 or 1 from deviation of a transmission timing of a pulse signal from a reference time, and said template generation portion ~~acquires a reception waveform of the first signal, and generates the template by synthesizing~~ the first reference waveform and the second reference waveform ~~a waveform obtained by inverting a sign of the reception~~

~~waveform~~first reference waveform and delaying the ~~reception waveform~~first reference waveform by a time corresponding to deviation of the transmission timing and the ~~reception waveform~~.

Claim 14 (canceled).

15. (currently amended)A signal receiving method in a radio signal communication system for performing communication by transmitting and receiving pulse signals, comprising the steps of:

receiving a first signal;

judging a propagation path condition between a transmitter and a receiver by use of the first signal;

generating a template used for correlation calculation with a reception signal in accordance with the propagation path condition judged; and

performing the correlation calculation between the template and the second signal.

wherein said step of generating the template includes a step of storing the reception waveform of the first signal as a first reference waveform, a step of generating a second reference waveform by changing the first reference waveform, and a step of synthesizing said first reference waveform and said second reference waveform.

Claims 16 and 17 (canceled).

18. (currently amended) A signal receiving method as defined in claim 15, wherein said radio communication system discriminates whether the transmission signal is set to 0 or 1 from deviation of a transmission timing of a pulse signal from a reference time, and

wherein said step of generating the second reference waveform includes a step of inverting a signal of the first reference waveform and deviating its position on a time axis corresponding to deviation of the transmission timing~~judgment step of the propagation path condition includes a step of acquiring the reception waveform of the first signal, and said step of generating the template generates the template by superposing a waveform obtained by inverting a sign of the reception waveform of the first signal and deviating its position on a time axis and the reception waveform of the first signal.~~

19. (original) A signal receiving method as defined in claim 15, wherein the first signal and the second signal are contained in the same packet.

Claim 20 (canceled).